

Docket No.: GR 97 P 1903

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : HANSJÖRG REICHERT ET AL.
Filed : Concurrently herewith
Title : METHOD AND APPARATUS FOR PRODUCING A CHIP-SUBSTRATE CONNECTION



INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner of Patents and Trademarks,
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. 1.98 copies of the following patents and/or publications are submitted herewith:

U.S. Patent No. 4,214,904 (Kitchen et al.), dated July 29, 1980;

U.S. Patent No. 4,875,617 (Citowsky), dated October 24, 1989;

German Published, Non-Prosecuted Application No. 195 32 250 A1 (Wilde et al.), dated March 6, 1997, pertains to a configuration and method for diffusion soldering of a multi-layer construction;

Published European Patent Application No. 0 517 369 A1 (Parker et al.), dated December 9, 1992;

"A low temperature bonding process using deposited gold-tin composite", Chin C. Lee et al., Thin Solid Films, February 1992, No. 2, Lausanne, Switzerland, pp. 202-209;

"Au-Sn alloy phase diagram and properties related to its use as a bonding medium", Goran S. Matijasevic et al., Thin Solid Films, February 1993, No. 2, Lausanne, Switzerland, pp. 276-287;

"A New Gold-Tin Alloy Composition for Hermetic Package Sealing and Attachment of Hybrid Parts", D.D. Zimmerman, Solid State Technology, Vol. 15, No. 1, January 1972, pp. 44-46;.

"Alternative Lotwerkstoffe für Elektronikbaugruppen", Hans-Jürgen Albrecht, Siemens-Zeitschrift Special, 1996, pp. 14-16, pertains to alternative soldering materials for electronic component groups;

"A New Bonding Technology Using Gold and Tin Multilayer Composite Structures",
Chin C. Lee et al., IEEE Transactions on Components, Hybrids, and Manufacturing
Technology, Vol. 14, No. 2, June 1991, pp. 407-412;

Japanese Patent Abstract No. 54022164, dated February 19, 1979, from Derwent
Publication No. XP-002082510;

Japanese Patent Abstract No. 54022162, dated February 19, 1979, from Derwent
Publication No. XP-002082511;

Japanese Patent Abstract No. 55006839 (Hiroshi), dated January 18, 1980 and

Japanese Patent Abstract No. 01239982 (Tatsuya), dated September 25, 1989.

If no translation of pertinent portions of any foreign language patents or publications
mentioned above is included with the aforementioned copies of those applications,
patents and/or publications, it is because no existing translation is readily available to
the applicant.

Respectfully submitted,



For Applicants

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Date: January 14, 1999

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| FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b)) | | | | Attorney Docket No.: Appl. No. GR 97 P 1903 Applicant HANSJÖRG REICHERT ET AL. Filing Date Group Art Unit JANUARY 14, 2000 | | | |
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| EXAMINER INITIALS | PATENT NO. | DATE | PATENTEE | CLASS | SUB CLASS | FILING DATE |
|-------------------|------------|-----------|----------|----------------|-----------|-------------|
| A.S. A.S. | A | 4,214,904 | 07/80 | Kitchen et al. | | |
| | B | 4,875,617 | 10/89 | Citowsky | | |
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| FOREIGN PATENT DOCUMENT | | | | | | | |
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| | DOCUMENT NO. | DATE | COUNTRY | CLASS | SUB CLASS | TRANSL. YES NO | |
| J | 19532250A1 | 03/97 | Germany | | | | X |
| K | 0517369A2 | 12/92 | Europe | | | X | |
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| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) | | |
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| ✓ | "A low temperature bonding process using deposited gold-tin composite", Chin C. Lee et al., Thin Solid Films, February 1992, No. 2, Lausanne, Switzerland, pp. 202-209 | |
| ✓ | "Au-Sn alloy phase diagram and properties related to its use as a bonding medium", Goran S. Matijasevic et al., Thin Solid Films, February 1993, No. 2, Lausanne, Switzerland, pp. 276-287 | |
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| A.S. ✓ | ✓ | "A New Gold-Tin Alloy Composition for Hermetic Package Sealing and Attachment of Hybrid Parts", D.D. Zimmerman, Solid State Technology, Vol. 15, No. 1, January 1972, pp. 44-46 |
| A.S. ✓ | ✓ | "Alternative Lotwerkstoffe für Elektronikbaugruppen", Hans-Jürgen Albrecht, Siemens-Zeitschrift Special, 1996, pp. 14-16 |
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| A.S. | ✓ | "A New Bonding Technology Using Gold and Tin Multilayer Composite Structures", Chin C. Lee et al., IEEE Transactions on Components, Hybrids, and Manufacturing Technology, Vol. 14, No. 2, June 1991, pp. 407-412 | | | | | |
| A.S. | ✓ | Japanese Patent Abstract No. 54022164, dated February 19, 1979, from Derwent Publication No. XP-002082510 | | | | | |
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| A.S. ✓ | | Japanese Patent Abstract No. 01239982 (Tatsuya), dated September 25, 1989 |
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